

## THIS ISSUE

### Guideline for Cervical Surgery

**TO:**

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## Purpose and Development of the Guideline

This Provider Bulletin contains review criteria that will be used by the department's utilization review vendor to review requests for cervical procedures related to entrapment of a cervical nerve root. The Provider Bulletin also provides a definition of a positive response to a cervical selective nerve root block, and information on smoking cessation prior to cervical fusion.

This medical treatment guideline was developed through collaboration with the Washington State Department of Labor and Industries and the Washington State Medical Association (WSMA) Industrial Insurance Advisory Section of the Interspeciality Council. Labor and Industries is solely responsible for coverage decisions that may result from use of this guideline.

This Provider Bulletin becomes effective 07/05/2004.

## Literature Review on Cervical Surgery

A review of the current medical literature was conducted for prospective randomized trials of cervical discectomy with, or without, fusion; cervical discectomy with fusion and instrumentation; and the effect of smoking on spinal fusion. Prospective randomized clinical trials concluded there is not a significant difference in long-term outcomes between anterior cervical discectomy and anterior cervical discectomy with fusion.

Smoking has been shown to reduce spine fusion rates due to interference with bone metabolism, revascularization, and suppression of bone formation. One retrospective case study concluded that anterior cervical plating markedly improved cervical fusion rates in smokers. Smoking cessation is recommended prior to spinal fusion.

## **Definition of a Positive Response to a Selective Nerve Root Block**

A selective nerve root block may be considered “positive” if it:

- Initially produces pain in the distribution of the nerve root being blocked, and
- Produces at least 75% reduction in pain for duration consistent with the type of local anesthetic used for the block.

## **L&I may pay for Smoking Cessation Prior to Cervical Surgery**

Under most circumstances the department will not pay for smoking cessation products. An exception to this policy may be made when the Utilization Review (UR) vendor has provided a recommendation for approval of a spine fusion, and the physician has instructed the worker to stop using all tobacco products prior to spine fusion. Prior authorization for smoking cessation products must be obtained from the claim manager. Please see Provider Bulletin 03-13 for complete details.

## **Utilization Review required for Cervical Surgery**

The department’s UR vendor will use the Review Criteria for Cervical Surgery for Entrapment of a Single Nerve Root to review all requests for cervical surgery for state fund claims. The current UR vendor is Qualis Health, phone number 1-800-541-2894, and fax number 1-877-665-0383.

## Review Criteria for Cervical Surgery for Entrapment of a Single Nerve Root

PROCEDURE	CONSERVATIVE CARE	Clinical Findings		
		SUBJECTIVE	OBJECTIVE	IMAGING
CERVICAL  DISCECTOMY LAMINECTOMY LAMINOTOMY FORAMINOTOMY  WITH OR WITHOUT FUSION  EXCLUDING FRACTURES	6-8 weeks of:  Physical therapy OR Medications OR Cervical traction	AND  Sensory symptoms in a dermatomal distribution that correlates with involved cervical level (1) OR Positive Spurling test	AND  Motor deficit OR Reflex changes OR Positive EMG  Changes should correlate with involved cervical level	AND  Abnormal imaging that correlates nerve root involvement with subjective and objective findings, on:  Myelogram with CT scan OR MRI
<b>A positive response to Selective Nerve Root Block (2) that correlates with imaging abnormality is required if there are complaints of radicular pain with no motor, sensory, reflex or EMG changes.</b>				

Relative Contraindication: current cigarette smoking. See Provider Bulletin 03-13 for a description of the department's coverage policy on smoking cessation prior to spinal fusion.

Cases to be referred for physician review include:  
 Repeat surgery at the same level  
 Request for surgery at C3-4 level or above  
 Objective findings indicating myelopathy

When requesting authorization for decompression of multiple nerve roots levels, each level is subject to the review criteria.

(1) Sensory deficit, motor weakness, and reflex changes may vary depending on innervation.

- C4-5 disc herniation with compression of C5 nerve root may produce sensory deficit in the lateral upper arm and elbow; motor weakness in the deltoid and variably in the biceps (elbow flexion); and reflex changes variably in the biceps.
- C5-6 disc herniation with compression of the C6 nerve root may produce sensory deficit in the radial forearm, thumb, and index finger; motor weakness in the biceps, forearm supination, and wrist extension; and reflex changes in the biceps and brachioradialis.
- C6-7 disc herniation with compression of the C7 nerve root may produce sensory deficit in the index and middle fingers; motor weakness in the triceps (elbow extension), wrist flexion, and variably in the finger flexors; and reflex changes in the triceps.

(2) A selective nerve root block may be considered "positive" if it:

- Initially produces pain in the distribution of the nerve root being blocked, and
- Produces at least 75% reduction in pain for a duration consistent with the type of local anesthetic used for the block.

## References

- Ahn NU, Ahn UM, Andersson GB, An HS. Operative treatment of the patient with neck pain. *Phys Med Rehabil Clin N Am* 2003; 14: 675-692.
- Alvarez JA, Hardy RW. Anterior cervical discectomy for one and two-level cervical disc disease: the controversy surrounding the question of whether to fuse, plate, or both. *Crit Rev Neurosurg* 1999; 9: 234-251.
- Bose B. Anterior cervical instrumentation enhances fusion rates in multilevel reconstruction in smokers. *J Spine Disord* 2001; 14(1); 3-9.
- Cauthen JC, Kinard RE, Vogler JB, Jackson DE, DePaz OB, Hunter OL, Wasserburger LB, Williams VM. Outcome analysis of noninstrumented anterior cervical discectomy and interbody fusion in 348 patients. *Spine* 1998; 23(2): 188-192.
- Donaldson JW, Nelson PB. Anterior cervical discectomy without interbody fusion. *Surg Neurol* 2002; 57: 219-225.
- Dowd GC, Wirth FP. Anterior cervical discectomy: is fusion necessary? *J Neurosurg* 1999; 90(1 Suppl): 8-12.
- Fouyas IP, Statham PF, Sandercock PA. Cochrane review on the role of surgery in cervical spondylotic radiculomyelopathy. *Spine* 2002; 27(7):736-747.
- Hilibrand AS, Fye MA, Emery SE, Palumbo MA, Bohlman. Impact of smoking on the outcome of anterior cervical arthrodesis with interbody or strut grafting. *J Bone Joint Surg Am* 2001; 83-A (5): 668-673.
- Peolsson A, Hedlund R, Vavruch L, Oberg B. Predictive factors for the outcome (level of pain) of anterior cervical decompression & fusion. *Eur Spine J* 2003; 12(3): 274-80. April 2.
- Savolainen S, Rinne J, Hernesniemi J. A prospective randomized study of anterior single level cervical disc operation with long-term follow-up: surgical fusion is unnecessary. *Neurosurgery* 1998; 43(1): 51-55.
- Storm PB, Chou D, Tamargo RJ. Surgical management of cervical and lumbar radiculopathies: indications and outcomes. *Phys Med Rehabil Clin N Am* 2002; 13: 735-759.
- Vavruch L, Hedlund R, Javid D, Leszniewski W, Shalabi A. A prospective randomized comparison between the Cloward procedure and a carbon fiber cage in the cervical spine: a clinic and radiologic study. *Spine* 2002; 27(16): 1694-1701.
- Wing KJ, Fisher CG, O'Connell JX, Wing PC. Stopping nicotine exposure before surgery. The effect on spinal fusion in a rabbit model. *Spine* 2000; 25(1): 30-34.
- Wirth FP, Dowd GC, Sanders HF, Wirth C. Cervical discectomy. A prospective analysis of three operative techniques. *Surg Neurol* 2000; 53(4): 340-346.